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ABSTRACT

As part of an ongoing process of curriculum revision at Reading Area Community College (RACC), this program review examines current basic skills programming and support services portions of the college curriculum. Following introductory comments in section I, section II reviews pertinent basic skills research, indicating that useful programs approach the student in a holistic, integrated manner. Section III provides a review of existing basic skills programs and support services at RACC. This section begins with an overview of student admissions requirements and categories of admission and then describes the counseling and testing services making up the college assessment program. Next, the developmental studies program is examined, including a statement of the program's intent and purpose; information on program funding and integration; an overview of student flow in the program through the stages of identification, needs assessment, development of the individual student plan, assessment, and followup; and a review of major activity areas (i.e., placement based on test scores, developmental instruction, counseling services, English as a second language services, learning skills project services, tutorial services, and basic skills labs). Section III also includes short descriptions of RACC's adult basic education and general education development preparation and testing programs. Section VI provides a summary of conclusions. Developmental Studies Program data are appended. (LAL)

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READING AREA COMMUNITY COLLEGE
BASIC SKILLS PROGRAM REVIEW

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I. INTRODUCTION

John Goodlad and others have recently asserted that a primary educational battleground of the 1960s - equal educational opportunity - is being supplanted by a new struggle for equal educational access. Perceptive educators are beginning to recognize existing, fundamental curricular inequities among our nation's primary, secondary, and post-secondary schools.

Community college educators, in particular, confront a student body composed of diverse ages, aptitudes, and socio-cultural backgrounds. Growing economic support for occupational and technical programs has been fostered by strong competition from our global neighbors. This, in turn, has combined with increasing student demands for relevant courses and individual attention to transform the original intentions and goals of the community college curriculum.

The Basic Skills Articulation Team was formed and this Program Review was developed to review the current basic skills programming and support services portions of the college curriculum, and to discover new pathways along which those necessary skills can be articulated and enriched as part of our on-going process of curricular revision.

II. REVIEW OF PERTINENT BASIC SKILLS RESEARCH

The emergence of a diverse student body responding to the attractiveness of greatly expanded access to higher education during the 1960s required community colleges to develop new methods of instruction to accommodate student needs. This new student population was characterized by unsuccessful academic backgrounds, basic skills deficiencies, and confusion about career and educational goals.

Psychological attributes of these students often included passivity, poor self-esteem, anxiety, external locus of control, low aspirations, unrealistic expectations, and "fear threatened" avoidance of risk-taking behaviors (Roueche and Mink, 1976). During the 1970s, learning assistance programs emerged on many community college campuses. The common feature of these programs was a focus on individualized instruction (Baker and Painter, 1983). Today, however, learning centers represent the most common structure to assist and retain students (Beal, 1980). Successful programs are often characterized by strong leadership as well as effective assessment and placement systems. (Baker and Painter, 1983).

Formal program evaluations in developmental education remain rare, despite their importance in maintaining support for open educational access. A number of recent studies seek to isolate effective program components and assist colleges in using dwindling resources more efficiently.

Hunter Boylan described developmental education holistically as a process which not only provides basic skills classes but also such learning assistance as tutoring, counseling, and academic advising. A review of literature by Burnham (1983) portrayed successful learning centers as those blending instructional resources, instructional media, learning skills development, tutoring and instructional development.

Two national studies documenting the success of some developmental programs in addressing learner needs while improving retention were performed in 1977 and 1978. Roueche and Snow (1977) found five program characteristics which had a significant relationship to student program completion. These include (1) written course objectives for students; (2)

use of peer tutors; (3) peer counselors trained in techniques to enhance self-concept; (4) a developmental faculty displaying an attitude favorably comparing underprepared learners with other learners; and (5) strategies for self-concept development. Generalizing from this study, Roueche and Snow characterized successful programs as those making a specific effort to address content, instructional techniques, and teacher attitudes in a way which encourages improved self-concept and self-responsibility on the part of the learners.

A second national study was conducted by the American College Testing Program in 1978 to identify, compile, and analyze information about programs designed to improve retention. Finding that improved instructional services can enhance retention, the study indicated that the most frequently used programs were learning skills and learning centers, and components included advising, orientations, and early warning systems. The study ascribed a relationship between learning centers and retention. Most common characteristics of such centers were individual tutoring, credit and non-credit courses, group learning sessions, learning contracts, and career-related learning services (Burnham, 1983).

Commenting on a report from the Fund for the Improvement of Post-Secondary Education concerning underprepared learners, Bernstein (1979) observed that the most useful efforts to assist underprepared students included an integration of cognitive and affective dimensions which approached students "in terms beyond success in college."

In reviewing the literature, Burnham (1983) asserted that successful efforts concentrate on teaching learning skills, enhancing self-concept, and combining self-paced instruction with group learning. Obler (1983) revealed five major patterns in her survey of literature: thorough

assessment; systematic instruction; staffing which included faculty, counselors, and peer tutors; consistent evaluation; and centralized program coordination.

A more recent national survey was conducted by the University of Texas (Roueche, 1982) to identify successful programs. Success was defined as 50% or better student retention in basic skills courses. On the basis of survey results and additional follow-up on highly-rated programs, twelve elements of success were inferred. These were defined as factors most predictive of success with low-achieving students and included:

1. Strong Administrative Support - evidenced by statements in the catalogue and in the Board policy supporting assessment and placement efforts with entering students.
2. Mandatory Assessment and Placement - institutional conditions for enrollment are set requiring some students to complete basic courses before moving on; some attempts at limiting course load.
3. Structured Courses - semester-long segments housed in departments; specific meeting times; traditional or "progress grades" used.
4. Credit Awarded - institutional credit typically awarded.
5. Flexible Completion Strategies - students may re-enroll in courses and begin where they left off during the last time period; predetermined time limits are set; if students complete courses, they may exit prior to end of term.
6. Multiple Learning Systems - use of assessment and subsequent learning prescriptions; performance-based course objectives, self-paced modules plus group instruction; pre- and post- testing used to proceed through planned sequences; variety of

instructional tools; close monitoring; and individual tutoring and support.

7. Volunteer Instructors - decision made by instructor to teach the course.

8. Counseling - individual (not group) counseling recommended as part of the instructional effort.

9. Peer Tutoring - used extensively within class and as outside support; preservice training and evaluation necessary.

10. Monitoring Systems - attendance, assignments, and progress followed; absent students contacted to minimize interruption in learning.

11. Interfacing with Subsequent Courses - needs assessments performed; instruction toward general and specific expectations of next course; formal, written exit criteria.

12. Evaluation - measurement of success in subsequent courses.

This brief review indicated that useful programs approach the student in an integrated, holistic manner. The dilemma of reconciling excellence and access will be a challenge in the 1980s. It is no longer adequate to provide services - documented outcomes are needed to keep the college door open and make good on the promise of the community college.

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III. REVIEW OF EXISTING RACC BASIC SKILLS PROGRAMS AND SUPPORT SERVICES

A. Student Admissions Requirements

The College catalogue provided the most comprehensive explanation of student admissions requirements. Pertinent sections of that explanation are cited below. Existing placement measures, such as the Nelson-Denny Reading Test, the Test of English as a Foreign Language (TOEFL), the College Entrance Examination Board (CEEB) Advanced Placement Tests, the College Level Examination Program (CLEP), the American College Testing Proficiency Examination Program, the United States Armed Forces Institute and Defense Activity for Nontraditional Education Support (DANTES), Military Service School Training, Noncollege Sponsored Instruction, Experimental Learning, and Institutional

Credit Examinations will be reviewed in subsequent sections of this report.

1. Open Admissions

Reading Area Community College is an "open door" educational institution. Admission to the College is open to individuals who have received their high school diploma, G.E.D. Certificate, or who, in the judgment of the College, will benefit from a collegiate experience. Entrance examinations are not required for acceptance. While prior academic records of applicants are required as part of the admissions process, they are not used as a basis for selectively admitting students to the College. Students who do not possess a G.E.D. must be interviewed and assessed by the DSP Coordinator.

Reading Area Community College is also committed to providing equal educational opportunity for all students regardless of race, color, religion, national origin, ancestry, sex, or handicap. This policy applies to all prospective students.

Under its open admissions policy, Reading Area Community College enrolls students from varying academic backgrounds. Therefore, some applicants may need to submit certain background data before being admitted to the College. Pre-registration testing is required of students for use as a counseling aid to suggest to students how the College might best meet their needs. On the basis of such tests, students will be advised to enroll in appropriate freshman courses, to pursue developmental studies coursework prior to taking other courses, or to consider noncredit academic preparation before enrolling in credit course offerings at the college. Enrollment decisions based on placement testing scores will be made jointly between the counselor

and the student. Where evidence indicated that the student will have extremely poor chances of success, the College will so advise the student and provide assistance in contacting programs more suitable to the student's academic needs.

The open admissions policy does not, however, guarantee acceptance into a specific program of study. In some programs the student must meet certain qualifications to secure licensure or certification after completion of the program. For the student to fulfill these qualifications, the program must comply with regulations established by various governing bodies. Enrollment limitations, based upon availability of college or community facilities used for practice experience, may also occur. Therefore, specific admissions requirements and procedures have been established for these selective admissions programs.

2. Categories of Admission

There are two general categories under which applicants may be admitted to Reading Area Community College. The general categories of admission are (1) Degree Candidates, and (2) Nondegree Candidates. Both full-time and part-time students may enroll in either category.

Degree Candidates are defined as those applicants who wish to enter Reading Area Community College for the purpose of earning an associate degree. Included in this category are the following types of students:

a. Regular Degree Candidates: Applicants who wish to enter Reading Area Community College to earn an associate degree by completing the requirements for a program of study listed in the College Catalogue.

b. External Degree Candidates: Applicants who wish to earn an associate degree by requesting academic credit from an assessment of their non-traditional college-level learning experiences, and applicants who wish to have an individualized program of study designed to meet their specific education objectives.

Nondegree Candidates are defined as those applicants who wish to enter Reading Area Community College for purposes other than earning an associate degree. Included in this category are the following types of students:

a. Transient: Students matriculating at another college who elect to take certain courses at Reading Area Community College and then return to their home institution. Admissions requirements for specific programs, such as nursing and medical laboratory technology, may vary from the general requirements discussed above.

b. Headstart to College: High school seniors who, with parental approval and permission of their high school principal, enroll in selected courses offered by Reading Area Community College. Credits earned may be applied later towards a degree from the College or may be presented for transfer credit at another college or university.

c. Adjunct: Normally, those individuals who wish to take a specific course or courses for job improvement or self-improvement, but not necessarily as a degree student. Coursework taken as an adjunct may be applied later toward a degree from the College or

may be presented for transfer credit at another college or university.

B. College Assessment Program

1. Counseling Services

The College provides a staff of professional counselors to assist students with personal and social matters, as well as vocational and educational planning. Students are encouraged to take advantage of the opportunity to explore their interests, aptitudes, and personal characteristics. This service is important, particularly in relation to selection of appropriate educational programs and future goals.

Counselors can help students explore and develop career goals. Some new students may need to take certain basic skills courses to develop capacities necessary for success in higher-level courses required in a particular program of study at the College, or to prepare for transfer to a senior college or university upon completion of studies. All students plan their first term of study in consultation with a member of the counseling staff. Students subsequently are assigned to a faculty advisor who will assist them in future course selections. Counselors continue to assist students by working closely with the division chairperson and faculty advisors in their personal and social development. In doing this, a counselor may help students explore the various demands and implications of college life, as well as find meaning as an individual. Should a student require assistance beyond the scope of the counseling services, referrals will be made to appropriate agencies.

2. Testing

In helping students, counselors may use standardized tests and inventories, educational and vocational information materials, financial aid information, and special group programs such as career planning and job placement seminars.

The counseling services staff offers a number of tests designed to achieve college credit, gain insight into personal interests or personality traits, or obtain information for academic advisement purposes. Among these test offerings are: New Student Placement Testing. the College Level Examination Program, the Strong-Campbell Interest Inventory, the Edwards Personal Preference Schedule, the Career Aptitude Placement Survey, the Inventory of Study Habits and Attitudes, the Tennessee Self-Concept Scale, the Career Assessment Inventory, and the Work Values Inventory.

C. Developmental Studies Program (DSP)

1. Statement of Intent and Purpose

The Developmental Studies Program is designed to actualize the "Open Door" admissions commitment of Reading Area Community College by assuring equal educational opportunity and access to all students. The Developmental Studies Program identifies the unique needs of each learner and assists him or her in developing the necessary skills and attitudes to function successfully as an independent student.

Success of the underprepared student at Reading Area Community College is predicated on the unique interrelationship of the components of the Developmental Studies Program. Seldom does this student experience a single, easily diagnosed skill deficiency; more often, he or she experiences a variety of converging basic skills deficits.

The same student may also exhibit inadequate study techniques, inefficient problem-solving methods, difficulties in developing and working toward long-term goals, and negative self-concept, as well as general college adjustment problems or confusion relating to locus of control.

Though each DSP component--developmental courses, ESL classes, tutoring, basic skills labs, counseling, and handicapped services--can function independently and serve a broad range of student needs, it is the fully integrated package which best serves the individual student by addressing his or her needs in a highly personalized, holistic fashion. Therefore, students pursuing the developmental courses are also supported by the basic skills labs, tutoring, and the professional staff. This staffing pattern prevents students from becoming "lost" and helps them develop academic and affective awareness by receiving consistent, accurate feedback. (See Table 1 below for a detailed presentation of the chief components of the developmental Studies Program.)

2. Funding and Program Integration

The Developmental Studies Program is composed of four major components funded from different sources:

a. Developmental Instruction

Developmental education at RACC is currently funded by the institution. Three full-time instructors provide basic skills courses in reading, writing, and mathematics to assist underprepared students in developing the competencies needed to deal effectively with regular college coursework.

b. EMPHASIS Program - Act 101

Funded by a grant from the State of Pennsylvania under Act 101, EMPHASIS is an equal educational opportunity program

Table 1

OVERVIEW OF THE DEVELOPMENTAL STUDIES PROGRAM

Chief Features	Highlighted Aspects
Major Activity Areas:	* Developmental Instruction * Tutoring Services * Counseling * Basic Skills Labs * ESL Program * Learning Skills Program
Major Programs:	* RACC Developmental Instruction * ACT 101/EMPHASIS * Vocational Education (English as a Second Language) * Vocational Education (Learning Skills Project)
Supporting Services:	* Consultation * Testing * Walk-in Labs * Academic Advisement and Planning * Outreach and Recruitment * Pre-College Programs * Academic Contracts designed to assist educationally and economically disadvantaged full-time students to succeed in college.

EMPHASIS provides funding for tutorial and counseling services. It also currently funds the reading, writing and mathematics basic skills labs.

c. English as a Second Language Services (ESL)

ESL instruction, tutoring, lab services, and vocational advisement are funded through a Vocational Educational grant from the federal government. These services are designed to assist students of limited English speaking ability to succeed in vocational courses of study.

d. Learning Skills Project

Instruction, assessment, outreach, counseling, and tutoring are provided to learning disabled and physically handicapped students. This program is funded from federal Vocational Education monies.

3. Student Flow - Developmental Studies Program

a. Identification

Regularly admitted RACC students are routed from the Admissions Office to the Counseling Center for placement testing followed by advisement with the DSP Coordinator, Counselors, or Tutor Coordinator.

Students who do not possess a highschool diploma or G.E.D. are screened by the Admissions Office. The Coordinator of Admissions sends a letter to these potential students advising them to (1) schedule placement testing, and (2) schedule an interview with the DSP Counselor or DSP Coordinator after placement testing. The purpose of this interview is to determine the student's probability of success in college credit courses. This

interview influences the possibility of the student obtaining financial aid, but it will not prevent the student from being admitted to the college.

Currently enrolled students are identified for tutoring or counseling services primarily through self-referrals. Some also arrive at the DSP through faculty, staff, and peer referrals; mid-term evaluations; and through the Probation List, generated by the Vice President's office. All students on probation for the second time are required to use the DSP as part of their conditional probation status. Handicapped students are referred to the DSP for a variety of services by other college support services and by community agencies.

b. Needs Assessment and Development of the Individual Student Plan

When the potential, newly admitted, or currently enrolled student is interviewed by a member of the DSP staff, a needs analysis is performed. During this intake interview and subsequent meetings, the staff seeks to determine the student's potential and capabilities based on a review of placement test scores, past academic performance, motivational level, and general aptitude for college-level work. If needed, other DSP specialists are consulted for additional information or diagnostic testing. This assessment helps determine the Individual Student's Plan (ISP) developed by the student and the DSP staff member.

Potential students scoring below the established placement entry level for DSP courses are referred to the College Entrance

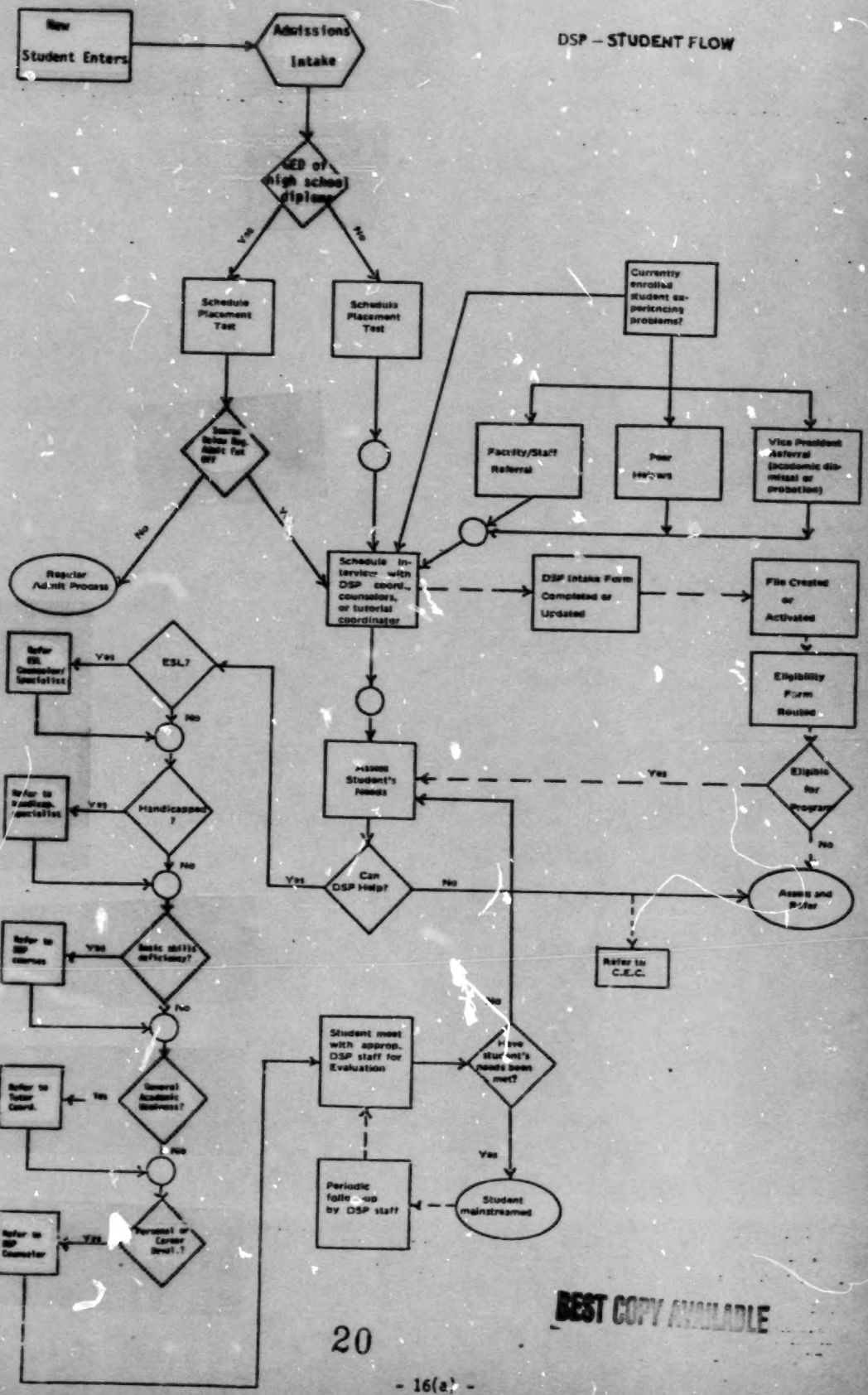
Course (CEC), a non-credit class offered by the DSP. This individualized course is designed to improve the student's basic skills level, so he or she may enter DSP credit courses.

Potential and newly admitted students scoring within the DSP range on placement tests are advised to enroll in DSP courses. Students may take a block of DSP courses or may be advised to take a combination of DSP and regular college courses as needed. However, the more severe the basic skills deficiency, the less likely the student will be enrolled in regular college courses.

In addition to basic skills remediation, students may be diagnosed as needing other DSP services. An ISP may include ESL assistance, specialized workshops, handicapped services, regularly scheduled tutoring or lab work, counseling, or assignment to a peer helper. Students whose needs cannot be addressed by the DSP are referred to the appropriate college support services or community agencies. (The Developmental Studies Program Student Flow Chart presented below provides a comprehensive visual representation of the interrelationships among program components.)

c. Assessment

Once the ISP is established and functioning, the assigned DSP staff member meets periodically with the student to monitor his or her progress. Other sources of progress evaluation are DSP case staffing, interviews with tutors and peer counselors, written faculty evaluations, mid-term grades, and consultations with RACC staff members. Frequently, revised ISPs result from



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these evaluations if it is found that the student's needs are not being adequately met.

d. Follow-Up

After completing the ISP, the student is "mainstreamed" into the regular academic community. Periodically, the DSP provides interviews or other communication to ensure that the student is succeeding in his or her goals. Should the student be experiencing concerns, a new needs assessment and ISP are developed and provided for the student.

4. Major Activity Areas

a. Developmental Education

The Developmental Studies Program provides instruction in six basic skills to help the underprepared student acquire the skills and competencies needed to deal effectively with regular college courses. All credit courses are coordinated through the college academic divisions. DSP courses are three (3) credits. These credits can be used as free electives in the student's degree program. All developmental courses are competency-based. Some courses have required basic skills lab hours; however, supplemental instruction for all courses is available in these labs.

Placement in DSP courses is based on the following criteria derived from the RACC Placement Test:

DSP Reading:

* Reading level between 7th and 9th grade as measured on the Nelson-Denny Reading Test.

DSP Writing:

* Reading level above 7th grade as measured by the Nelson-Denny Reading Test. Holistic writing sample evaluation indicating under-preparation for English Composition, HU 121.

DSP Math:

* Raw score between 13 and 20 on RACC Placement Test.

ESL:

* Reading score below 7th grade level; intermediate level of CELT Test, and Writing Sample scored as ESL.

Students not meeting the above requirements are referred to a non-credit class: the College Entrance Course (CEC).

Developmental classes are offered in the following subjects:

* Reading
* Writing
* Mathematics
* English as a Second Language I, II, III, IV
* Study Skills
* Personal Development

b. Developmental Education Courses

1. College Entrance Course (CEC) (non-credit)

These are small individualized classes in basic education for students reading below the 7th grade level. Reading, writing, and mathematics instruction is designed to address individual student needs.

2. DSP Reading - HU 101 (3 credits)

Instruction in vocabulary and comprehension. Group and individual instruction in vocabulary.

3. DSP Writing - HU 101 (3 credits)

Competency-based instruction in the basics of composing short effective essays through guided practice with a variety of composing activities, strategies, and tasks.

4. DSP Math - SM 101 (3 credits)

Competency-based review and development of arithmetic and algebraic skills ranging from whole numbers through algebraic manipulation dealing with equations and polynomials.

5. Study Skills - HU 103 (3 credits)

Instruction in effective study, including techniques for dealing with college textbooks, writing assignments, research papers, and examinations.

6. DSP Personal Development - BS 101 (3 credits)

Development of composing skills necessary to adjust to the college environment, including college orientation, decision-making, and goal-setting.

7. English as a Second Language I (3 credits)

This course introduces students to fundamentals of English sentence structure. Topics of study include English sentence patterns and parts, adjective and adverb clauses and phrases, passive voice constructions, action linking constructions, and relative clauses. Also included is the use of the dictionary and English idioms. Supplemental instruction in reading, pronunciation, and writing in ESL Lab is required. Prerequisite: Placement by appropriate test or permission of instructor.

8. English as a Second Language II (3 credits)

This course builds on instruction received in ESL I and includes study of parts of speech, present and past participle constructions, gerunds, noun clauses, and proper use of connectors and conjunctions. Also included are vocabulary development and English idioms. Supplemental instruction in pronunciation, reading, and writing in ESL Lab is required. Prerequisite: Successful completion of ESL I or placement by appropriate test.

9. English as a Second Language III (3 credits)

This course is designed to allow students to begin examining particularities of English in written form. Emphasis is on verb tense, pronouns, and punctuation within the limitations of individual sentence structures, as well as English spelling systems (orthography) and advanced English idioms. Supplemental instruction in pronunciation, reading, and writing in ESL Lab is required. Prerequisite: Successful completion of ESL II or placement by appropriate test.

10. English as a Second Language IV (Advanced) (3 credits)

This course is designed to develop English writing skills and includes paragraphing, punctuation, and grammatical structures, as well as advanced English idioms. Supplemental instruction in ESL Lab is required. Prerequisite: Successful completion of ESL III or placement by appropriate test.

c. Counseling Services

The DSP Counselors address the needs of the non-traditional student through a preventive model of developmental counseling which emphasizes college adjustment and realistic educational planning. College success of the underprepared student is positively correlated with self-concept. The primary task of the DSP counselors is to help the student develop personal and academic competencies which will enhance self-concept.

The counselors provide individual and group assistance for personal and social concerns, academic planning, and career development. They also monitor financial aid concerns. Personal counseling focuses on development of self-awareness, values clarification, problem-solving strategies, goal-setting, and decision-making, as well as improvement of coping techniques and interpersonal skills needed for adequate social interactions and adjustment to the demands of the college environment. Academic counseling facilitates the development of accurate awareness concerning basic skills strengths and deficits, efficient course selection, and effective study techniques based on realistic priorities. Student academic progress is closely monitored and intervention strategies are implemented as needed. Career guidance assists the student in developing an awareness of personality traits, interests, and vocational strengths. The student explores himself or herself and studies career materials which provide a basis for effective occupational and educational decisions. Counselors may employ career interest and personality assessments in this process; they may also assist students in developing effective job-seeking and employment skills.

d. ESL Services

1. Instruction

Instruction in English is provided on four levels, each of which is a three (3) credit course. Classroom instruction is designed to help the student develop competency in grammar, punctuation, sentence patterns, and paragraph and essay writing. It also seeks to improve reading comprehension, vocabulary, and pronunciation. ESL is highly individualized, and each student is provided with an individual plan which is actualized through supplemental instruction in the ESL Lab. All students pursuing ESL are required to attend lab.

2. ESL Lab

The ESL Lab is staffed by the ESL instructor and a Professional Lab Tutor for a minimum of twenty hours per week. Students using the lab follow an Individual Student Plan designed to improve basic skills in listening, speaking, reading, and writing. The lab is equipped with diagnostic and prescriptive materials, audio-visual equipment, print materials, and consumable instructional programs. Students use the lab in the following ways:

* As a supplement to ESL classes
* As a supplement to DSP classes
* As tutoring for regular English coursework
* As tutoring for English-related problems related to other college coursework

3. Vocational Counseling Services

ESL Vocational Counseling Services are designed to reduce barriers to academic success created by the English language, cultural differences, and economic deprivation. To this end, the ESL student is provided with on-going assistance in academic planning, vocational exploration, and decision-making. Personal, financial aid, and academic counseling are also available to assist the student in adjusting to college and developing effective study strategies. The progress of the student is monitored from the pre-admission process through graduation to ensure adequate academic support.

Students are referred to the DSP from community agencies, admissions, counseling, and other college support services. Student services are coordinated through the ESL Vocational Counselor. An intake interview is conducted with all ESL students, and an Individual Student Plan is developed. Counseling Service assistance is provided chiefly through the individual student interview. The ESL Counselor provides the following services:

* Outreach to local high schools and community agencies to identify potential ESL students and disseminate information concerning ESL and DSP services.
* Student advocacy concerning the admissions, financial aid, and registration procedures.
* Participation in placement and diagnostic testing.
* Development and implementation of student support groups.
* Personal, career, and academic counseling as needed.

* Articulation with the RACC Placement Office as a means of directing students toward meaningful employment.

* Advisement of the RACC International Club.

e. Learning Skills Project Services

1. Purpose

The goal of the Learning Skills Project is to provide academic and vocational support to physically impaired and learning disabled individuals. This support is implemented by assisting students in maximizing access to all college services. The project offers the student assistance in basic skills development, tutorial and readers' service, and educational adjustments in and out of the classroom. Typical adjustments include: classroom modifications, taping, note-taking, special equipment and materials, alternative testing, study skills assistance, and home-bound instruction.

2. Delivery of Services

Services are provided chiefly by the Learning Skills Specialist and the Instructional Specialist for the handicapped; however, additional services are provided by the Tutor Coordinator, the DSP Coordinator, the Peer Tutor, and the Lab Tutors. Primary sources of referral include high schools, social service agencies for the handicapped, DSP instructors, RACC instructors, the Tutor Coordinator, the Counseling Center, and the Admissions Office. Students are assessed at an intake interview and further testing is done as needed. An Individual Student Plan is devised according to specific need. With student consent these special needs are shared with faculty and staff through case staffing

when necessary or are addressed in the DSP labs, by individual tutoring, or by the LSP staff.

3. Record-Keeping

The Learning Skills Project (LSP) maintains a file on each disabled student. Contact sheets are kept on all LSP contacts. An Individual Student Plan and testing scores are also kept in these files.

f. Tutorial Services

The goal of the tutorial program is to assist the under-prepared student to become an independent learner through a process of intensive study skills, counseling, and individualized tutoring. Tutoring is perceived as a three-fold process, which includes:

1. An academic component, designed to remediate basic skills deficiencies and communicate course concepts.
2. An affective component, emphasizing empathic relationship-building to provide support, encouragement, and increased self-confidence.
3. A learning skills component, providing a systematic approach to developing effective learning techniques.

Tutoring services are designed to maintain enough flexibility to be responsive to the varied needs of our students. Therefore, tutoring is offered in a variety of formats. However, each format emphasizes individualized, personal attention. Students may use individual, one-to-one tutoring, basic skills labs, small-group tutoring, study skills, or counseling workshops and academic development seminars. The workshops and seminars

provide students with specific strategies for academic improvement.

Tutorial Services are delivered according to the sequence indicated below.

1. Tutoring referrals are received by the Tutorial Coordinator from the DSP staff, faculty members, the Counseling Center, and self-referrals.
2. All potential tutees are interviewed by the Tutorial Coordinator to assess specific academic needs. An Individual Student Plan is then implemented.
3. Tutoring sessions are arranged on the following schedules according to individual student needs:
   a. Individual, one-to-one tutoring on a regularly scheduled basis during day and evening hours.
   b. Small-group tutoring (maximum 4) on a regular basis.
   c. Special study groups arranged as needed during examination periods.
   d. Walk-in Tutoring Labs attended on a voluntary basis (services are advertised throughout the college). Labs are designed to help students experiencing short-term coursework concerns.
4. Study skills assistance in all content areas is provided by the Tutorial Coordinator on a walk-in or regularly scheduled basis.

The staff of the tutorial component is composed of a Tutorial Coordinator who articulates with both the Developmental Studies Program staff and the general college staff. The

Tutorial Coordinator hires, supervises, and trains all Professional/Peer Tutors in the program and is responsible for scheduling and record-keeping. Professional Tutors must possess at least a Bachelor's degree; Peer Tutors must be recommended by faculty.

Tutors are required to maintain a written log of all tutoring sessions. These records are reviewed bi-weekly by the Tutorial Coordinator and then placed in the student file. All Peer Tutors are also required to attend weekly training sessions during which the following topics are presented: basic helping skills, interpersonal communication, developing student responsibility, effective study skills, alternate learning styles, cultural awareness, and the special needs student. Techniques used for training include lecture, group discussion, role playing, video-taping, and audiovisual presentation. In addition to the training sessions, all Peer Tutors are required to attend the study skills workshops.

Professional Tutors meet bi-monthly with the Tutorial Coordinator and other DSP staff (as needed) for the following purposes: development of workshop ideas and materials, expansion of lab services, implementation of new services, case staffings, and professional growth. Lab Tutors are responsible for organizing and presenting several of these study skills workshops. Attendance at inservice training and professional conferences is actively encouraged.

Tutoring records are incorporated within other DSP files. Specific tutoring information includes: Program Referral Forms,

tutorial progress notes, tutorial probations, Early Warning Referral Forms, consultation notes with faculty, mid-term reports, college transcripts, and placement test results.

Student progress is evaluated by the instructor at mid-term, and the Tutorial Coordinator follows up on each evaluation. Students experiencing academic difficulties before the end of the third week of a term are referred by faculty to the Tutorial Coordinator via the Early Warning System.

Evaluation of Professional/Peer Tutors is performed through the students' verbal and written feedback, direct observation of tutoring sessions, and written evaluations by the Tutorial Coordinator.

3. Basic Skills Labs

The Basic Skills Labs are designed to provide short-term, walk-in assistance to students experiencing minor coursework concerns or seeking to improve their basic skills in reading, writing, mathematics, studying, or English.

The labs, which are open an average of thirty hours per week (day and evening hours), are staffed by Professional Tutors. No appointment is needed to obtain services. Hours of lab service are posted throughout the college and are distributed to all faculty members.

Each lab is equipped with appropriate supplemental print and audio-tutorial materials which may be assigned for student use. Instructional computer software is also available for student use in the Learning Resource Center. These labs are designed to

supplement rather than to replace individualized tutoring. A brief summary of services for each Basic Skills Lab follows:

1. Reading/Writing/Study Skills Center

This lab stresses the integration of several basic skills. Specific areas include: diagnosis and prescription of reading, writing, and study skills problems; supplemental assistance with DSP coursework; assistance with reading and writing concerns in regular college courses (term papers, book reviews, technical vocabulary, taking essay exams); and study skills instruction.

2. Mathematics Lab

The Mathematics Lab emphasizes the development of specific problem- solving strategies for students experiencing mathematics concerns. Lab Tutors provide individual tutoring in lab as well as group review sessions for Elementary and College Algebra and Foundations of Mathematics. Special lab time (3 hours per week) has also been set aside specifically for developmental mathematics students. DSP Mathematics study guides and regular college course concept sheets are available to students.

3. English as a Second Language (ESL) Lab

The ESL Lab provides supplemental assistance for non-native English speakers. Students enrolled in ESL courses are required to spend three hours per week in lab. The lab component emphasizes improvement in reading, writing, speaking, and listening. Small discussion groups are organized to develop the students' conversational skills. ESL students are also referred to the Reading/Writing/Study Skills Center for additional help.

The basic Skills Labs are offered every term. Other walk-in labs, such as accounting, data processing, and science are provided as needed. The labs focus on specific concepts and course requirements. Professional or Peer Tutors maintain the labs from eight to fifteen hours per week.

4. Developmental Studies Writing

a. Background of the DSP Writing Course

DSP Writing became a three (3) credit course in the Fall of 1981. But as early as 1975, RACC recognized the special needs of the basic or developmental writer. "With lab" sections of HU 121 (GE 101) using English 3200 as the supplemental text were offered to students placing low (below the 17th or 19th percentile) on the Comparative Guidance Placement Test. The first DSP Writing sections, offered in the 1978-80 School Years for two years, moved away from the "programmed text" approach of English 3200 to a "diagnostic tests and prescriptions" model, hoping this would better use the Comparative Guidance Placement Test data and better individualize the course. In November (for Winter Term) of the 1979-80 School Year, however, the testing device for placement changed to a Writing Sample; and the course has matured steadily by adopting models more responsive to research literature on the composing process. (Refer particularly to Karen Jacobson and Annette Horner's 1983 Title III Summer Project, Notes to Teachers of Basic Writing: An Instructor's Guidebook.)

b. Background of the Writing Placement Test

Encouraged by research that showed very consistent agreement among evaluators of writing when they graded samples holistically

(College Board Workshop, 2/1/78: Lynn Troyka and Gertrude Colan), the Humanities Division tried to apply the holistic approach when evaluating the Writing Samples. This attempt was early recognized to have a fundamental flaw: holistic evaluation produces only a relative ranking of the samples, whereas the "HU 121 or HU 101/CEC" decision requires a reasonably absolute cut-off point. The Humanities Division has often recognized the need for formalizing precisely what features the writing sample evaluators should be focusing on and how much weight or what cut-off value should be ascribed to each feature. (Holistic evaluation carefully shuns focus on any particular feature.) Thus far, no such formalizing has been done beyond that found in the instructions on the Writing Placement Test itself. Still needed is an intradepartmental document clarifying and regularizing the criteria of evaluation to be applied to the Writing Placement Test. (Of special interest: Karen Jacobson's graduate course paper evaluating the holistic scoring method currently used at RACC.)

c. Background of the Writing Lab

When it began in 1979-80, the lab was operated both by paraprofessionals and instructors. Some instructors were even given released time, the lab hours equating to one preparation/section out of their teaching load. Students used the lab for help at any stage of the composing process, in any out-of-class writings.

But sporadic use of the labs (See flood-trickle patterns in usage charts; e.g., p. 11 of the 1982-83 DSP Annual Report.) and

high cost of releasing full-time instructors to manage some of the lab hours led to the withdrawal of instructors from the labs. And perhaps as a secondary consequence, the paraprofessionals and student-tutors who remained have been restricted to helping students only on papers that have already been graded.

d. Data on DSP Writing Course and Lab

1. Sources

The main sources for raw data and data comparisons are DSP Annual Reports (compiled from monthly and term-end reports) and LRC Annual Reports. These are available for the 1981-82 and 1982-83 School Years with comparative data back to 1979. As regards DSP Writing, the LRC Annual Report is identical in coverage except for a four-year comparison table on the 8th page of its 1982-83 issue. (Relevant pages in the DSP Annual Report are 3, 4, and 5 for 1981-82, then 5, 7, 8, 10, and 11 for 1982-83 with general retention figures on p. 9.)

2. Data on the Course

The four-year comparison table shows the DSP Writing course closely following the growth percentages of the overall Developmental Studies Program.

Growth Percentages	79-80 to 80-81	80-81 to 81-82	81-82 to 82-83
DSP Program Overall	100%	45%	27%
DSP Writing	96%	52%	27%
Contrast DSP Mathematics	36%	4%	22%
DSP Reading	100%	-34%	-24%

This is not simply due to the writing course's accounting for most of the program; it does not. It accounts for just under a third and has stayed a constant 30-31% of the total students served during these four years (another statistical feature which no other course shows). These data, along with the declining rate of growth, may comment to those who say the DSP Writing enrollment is becoming inordinately large due allegedly to stricter evaluation of Writing Samples.

The DSP Annual Report pages given above also have data relevant to concerns about the grading in the writing course, and since over-strict grading would impact on retention and articulation, the worry is worth comparing to the available data. While DSP Writing instructors gave more Rs and had more Ws (according to the DSP Annual Reports) they failed a lesser percentage than Mathematics and Reading -- contrast 31% to 39% and 41% respectively for 1981-82, and 22% to 33% and 29% respectively for 1982-83.

A final point must be underscored: retention rates (p. 9 of 1982-83 DSP Annual Report) have increased over the last three academic years.

3. Data on the Lab

Regarding total number of students served by all four labs (289), the Writing Lab ranked second with 37% (103). But in total number of contacts (2,651), the Writing Lab ranked last with 12% (325). That suggests about three visits for each student (325/103), which could mean the lab

does not invite return visits or the lab succeeds in making students independent of its services. The data are ambiguous. (Refer to p. 5 of the 1981-82 DSP Annual Report.) And figures in the next year's report (1982-83 DSP Annual Report, p. 10) show the Writing Lab with the highest increase in total contacts over the previous year (+66% to Mathematics Lab's close second, +55%). The data on the lab cannot be used to evaluate lab effectiveness. Nevertheless, these increases cannot be accounted for by an overall increase in enrollment at RACC. Nor do such increases indicate any bad reputation from the previous year. The DSP Writing Lab is certainly well used.

5. Developmental Studies Reading Lab

a. Background Overview

The Developmental Studies Program offers two basic reading courses. Developmental Reading develops thinking/study/reading skills necessary to function within a college-level course. In addition to the above course, a DSP Reading Laboratory offers an informal and individualized means of reading instruction and testing.

The Developmental Reading course is designed to assist students to develop the reading competencies necessary to function in other college courses. The student will improve basic reading in the areas of word attack, word analysis, vocabulary development, and comprehension.

The Reading Lab offers its services to all students enrolled at RACC. The lab is equipped with current and diversified

instructional materials. Students enrolled in a reading course are given individualized assignments using their own college texts, as well as high-interest reading material to develop vocabulary, word attack, and comprehension skills. The use of controlled readers, specific study skills series, and periodicals are also used by the laboratory specialist.

Students experiencing reading difficulties in other areas of academic study are encouraged to use the lab. Testing is done to pinpoint specific skill deficiencies or broad reading levels. Independent, instructional, and frustration reading levels are then incorporated into the student's assignments.

b. Reading Placement Test Review

Current placement procedures for reading were reviewed to determine their effectiveness. Analysis of these procedures indicated that:

1. When placement testing originated several years ago, the 30th percentile was set as the cutoff point--students whose scores fell under the 30th percentile were directed to DSP Reading. The current cutoff--9th grade level--is only at the 18th percentile. (After a term of instruction, this 9th grade level falls to the 15th percentile.)

2. This lowering of standards occurred because the test was changed several times and became easier over the duration of the changes. The levels were not revised, however. For example, the 9.1 grade level on Form C of the Nelson-Denny Test is at the 8th percentile; 9th grade on the

current Form E is on the 18th percentile. (All percentiles relate to two-year college freshman.)

3. Comments in the Nelson-Denny manual indicated the inappropriateness of using grade levels for placement.

4. The need to revise the cutoff for reading placement to the 30-35th percentile was evident, as students exiting the reading course at the 15th percentile of the college population were, in all likelihood, inadequately prepared to deal with college work.

6. DSP Mathematics

The DSP Mathematics course began in the late 1970s as an individualized course of study for two (2) college credits. At that time the course could be used as a general elective. Students were placed in the first developmental mathematics course after taking a thirty (30) question placement test. An arbitrary score (no background statistical study had been done) was decided as the cut-off for placing a student in DSP or Elementary Algebra. The class size was a maximum of fifteen (15) students with one or two sections offered per term. Students received informal instruction in a classroom/lab situation.

The instructor and the classroom assistant gave individualized instruction for each module. The modules included arithmetic operations, fractions, decimals, percents, and packets. A student received pre-testing and post-testing for each module. The average age of the student was twenty-five and a majority came from low socio-economic backgrounds.

In the early 1980s under the Vocational Education grant, the DSP Mathematics class experienced many adaptations. Grant objectives included the replacement of the modules with a hardbound text, an increase in the number of topics covered (to include ratio/proportion and first degree equations), a separate room to act as a Mathematics Lab (open to all mathematics students at the college), and a DSP instructor who was to serve as the Mathematics Lab Specialist. A plan of action to increase student enrollment was also initiated at this time.

The DSP Mathematics instructor was now part of a team which consisted of the DSP Mathematics instructor, the DSP Writing instructor, the DSP Reading instructor, and the DSP Coordinator. However, little formal communication occurred among members of this team.

After three years of Vocational Education funding, RACC committed hard money to the Mathematics instructor position. The instructor had dual responsibilities as a member of the Science/Mathematics Division and as a member of the Developmental Studies Program. These roles conflicted at times because of the various needs of both entities. Enrollment had increased and the DSP Mathematics Specialist now carried a full instructional load. The Mathematics Lab was now a separate room and a part-time lab instructor was hired. The money for this position was and is now funded by grant monies.

The DSP gathered statistical data which showed more adaptations to the course should be initiated as the student population had changed considerably. Non-traditional students, including women, blacks, hispanics, and unemployed high school graduates (not recent

graduates) increased while the average student age soared from the late teens to the early thirties.

A more formalized, structured method of teaching the course was needed, as the class size had increased to a maximum of twenty-five students and the classroom assistants had been eliminated. To retain the individualized element the lab component became a mandatory part of the course. Since the course is competency-based and the student is allowed to retake tests, the lab became the primary site for conducting individualized instruction, addressing remedial problems, and retaking tests. The course was increased to three (3) credits and is still used as a general elective. Lab personnel and instructors worked as a team (and continue to do so). The placement test was expanded to forty-five (45) questions to cover other topics pertinent to the higher-level mathematics courses. Again no statistical data was gathered before the change was made. Arbitrary cut-offs were established for placement in the various courses.

The Mathematics instructor's role within division affairs increased and vertical integration of all mathematics classes was developed. New course syllabi, textbooks, and additional modes of instruction were adopted for all level mathematics classes, as a result of excellent communication between the DSP instructor and the Science/Math Division. Currently, the College Entrance Course (CEC) is a catch-all course in which students who are deficient in any of the three basic skill courses are placed. This course was established in the 1983-1984 Academic Year, and lines of articulation between the DSP level courses and CEC require further refinement. The placement test is presently being revised, since the addition of higher-level

mathematics classes created a need to expand the placement test to include Intermediate Algebra, Precalculus, and Trigonometry.

D. Adult Basic Education Program (ABE)

This free program is provided for individuals who have completed fewer than eight years of formal education. Enrollment is open to any individual sixteen years or older who wishes to receive basic education. Instruction in reading, mathematics, English, and consumer education is provided. Those people interested in applying for their U.S. Citizenship may receive instruction in American government and history. The Adult Basic Education Program is also designed to teach the English language and customs of the area to non-English speaking persons.

E. General Education Development Preparation and Testing Program (G.E.D.)

Reading Area Community College provides free classes to help adults prepare for the five-part test that must be passed by those seeking a high school equivalency diploma (G.E.D.). Classes are held at various locations throughout the city and county, and assistance for the G.E.D. examination is also available through the College's G.E.D. TV Program.

The G.E.D. examination tests individual knowledge of English grammar, interpretation of literature, social and natural science materials, and general mathematics.

The G.E.D. testing program has grown tremendously during the last few years. Adults eighteen years and older, as well as sixteen or seventeen year old participants meeting specific qualifications, are eligible. Students attempting to earn a G.E.D. diploma must establish a certain level of competency in the five subject areas examined by

the six-hour test. These areas include: Writing Skills, Reading Skills, Social Studies, Mathematics, and Science.

IV. A SUMMARY VIEW

The Basic Skills Articulation Team has reviewed pertinent professional literature, contacted other community college programs, and examined many internal documents in an effort to develop a comprehensive view of current basic skills programming and services offered at Reading Area Community College. Team members believe a number of important conclusions can be drawn form this work. These conclusions in turn, provide a basis upon which to formulate appropriate recommendations, which, if initiated, will improve the quality of basic skills teaching and learning at our college. These conclusions are outlined below, according to the level at which action is required. Specific data supporting these conclusions is located in the appendices.

A. Institutional Conclusions

1. Further study of other institutions' developmental and remedial basic skills programs is needed to identify successful educational practices that have been created elsewhere, particularly throughout New Jersey. Letter, telephone, and personal on-site visits to other programs should be encouraged and supported to develop a repertoire of successful basic skills practices that could be initiated at RACC.

2. The current college assessment program requires more comprehensive organization, coordination, and reporting. A qualified person could be hired to serve as Testing Officer with responsibility

for selecting, ordering, administering, and evaluating all placement, aptitude, and career tests.

3. The data available for the DSP Writing Course and Lab touch only in passing and quite tenuously on the question of how well the writing component of the DSP articulates with the rest of the college's efforts to provide quality individualized instruction. Surveys being considered would ask for faculty and student opinions as to how well the DSP component fits in. But harder data should be obtained by computer: specifically, grade follow-up studies of DSP Students, grade correlations, and computations of the statistical significance of findings. For how a student does at RACC after receiving DSP help is more germane than what opinions the student (or the instructor) may have about that help.

Two-year follow-up studies of DSP students are currently practical thanks to RACC's having entered most student data into computer storage. The records of such students should be compared to a control group of those who used no DSP services (or not the service being researched).

4. Further research concerning the implications of expanded basic skills offerings on campus is needed. More specifically, the cost-effectiveness and long-term effects on retention should be examined.

5. New ways of improving articulation between the Developmental Studies Program and faculty should be identified. A first step could be a joint exploration of ways to encourage greater use of such underused sources of basic skills development as advanced reading, study skills, and personal development.

B. Academic Affairs Conclusions

1. The current Developmental Studies Reading program could be improved by: (a) requiring all RACC students who read at less than the 11.5 grade level to take no more than nine (9) college credits without successfully completing the appropriate Reading courses; (b) creating two levels of DSP Reading, a lower DSP Reading course for institutional credit only, and a second level Reading course for three (3) credits; and (c) developing an individualized, competency-based course or lab where students would exit when progress is adequate.

2. Existing data related to current basic skills program efforts was found to be inadequate. More sophisticated forms of data collection, analysis, and presentation should be devised and initiated on a longitudinal basis to provide the necessary knowledge base from which to determine program strengths and weaknesses.

3. The current placement test requires revision because it distinguishes student abilities inadequately among various levels of the mathematics curriculum.

The proposed Mathematics Placement Test (See Appendix F below.) will cover topics from CEC through Precalculus. The thirty (30) question test is divided into three areas of mathematics. The first ten (10) questions are arithmetic, the second ten (10) are algebraic questions, and the third ten (10) are related to the higher-level courses. A basic program for administering of the test was constructed on diskettes and placed on the Corvus Hard Disk System. When students are tested in mass situations the same test will be administered using paper and pencil. Since the test must be looked at in segments, scoring on the Chatsworthe Optical Scanning Machine is

impossible at this time. The scoring procedure will combine use of the 3M Test Scoring Machine and hand-scoring. There is a good possibility the Chatsworthe program is adaptable, but this adaptation would not be completed until fall. Individual student placement needs will be met more fully with the new placement test, since specific rather than a general recommendation will be given. It will be the responsibility of the advisor to identify the student's curriculum and place him or her into the appropriate mathematics course.

4. The current procedure placing students in the DSP Mathematics class and then testing the student with an arithmetic test to assess the skill level for possible placement in CEC seems to provide an adequate way to retain the low-level student who often disappear when advised to enroll in CEC.

Closer articulation between the CEC course and the DSP Mathematics course is necessary. One way to address this issue could be to create a test similar to the Mathematics Placement Test could be constructed for use as an exit test in any level math course.

C. Divisional Conclusions

1. Placement in DSP Writing is currently based on attainment of the 7th grade reading level and a holistically graded Writing Sample. Because the DSP Writing textbook is written on the college level (13th grade level), a new entrance criterion needs to be explored. Failure rates in the DSP Writing course currently range from 20% to 30%.

Scoring should be revised to establish two levels of developmental writing. This could be accomplished through either a lower level DSP Writing course or placement into the non-credit College Entrance Course.

2. It is noted from the data that enrollment in DSP Reading is declining rapidly. Exploration of the causes of this decline is needed because it appears that reading scores of entering students have remained below college level expectencies.

3. Examination of the Nelson-Denny Reading Test and research relating to success of students in regular college courses suggest the need to explore new reading placement test options.

4. The Nelson-Denny manual does not advocate the use of grade levels for placement or diagnostic purposes. Consideration should be given to substituting use of grade levels with percentiles. According to the manual, grade level should only be used as a rough indicator of student progress.

5. Examination of reading grade levels compared with community college percentiles in the Nelson-Denny standardization sample indicates the need to raise the exit level for DSP Reading from 9th grade (18th percentile) to at least 11th grade (35th percentile). Alternatives for providing developmental instruction in reading from the 9th grade level through the 11th grade level include: (a) one DSP Reading course which is flexible enough to allow self-paced improvement of four grade levels, perhaps over a number of terms, or (b) the addition of an upper-level DSP Reading course between the 9th and 11th grade levels.

6. It appears that tutoring is a major vehicle at RACC for articulating basic skills with regular college courses. During the 1982-83 Academic Year, 526 students received tutoring, an 18% increase over the previous year. Of these, 352 students used basic skills labs, an increase of 21%. Because this essential program is entirely

dependent on grant money which may terminate at any time, it is suggested that the college provide financial support. The most efficient use of funds would be a full-time reading/writing lab instructor who would maintain the Reading/Writing Center.

7. It may be noted from retention data that attrition of DSP students increases rapidly during the second academic year. It is recommended that this data be compared with college retention as a whole. Reenforcement of basic skills throughout the two-year period is also recommended as an effort to improve both retention and program completion. Therefore, basic skills articulation in all college courses might be expected to become an essential college goal.

8. According to available data, 75% of students who take DSP Mathematics and DSP Writing courses and then attempt a higher-level course will succeed. These preliminary data seem to reveal that these DSP courses accomplish what they are designed to do. However, further research is needed to document this contention.

9. The Humanities Division should decide on a theoretically appropriate model for evaluation of writing sample placement tests. (This would probably be an "atomistic" or combined "holistic-atomistic" model.) The Humanities Division should then formalize in an intradepartmental document just what features ("atoms") of the writing samples the evaluators should be focusing on, the relative weight each feature should carry in the total evaluation, and what cut-off values will determine placement into HU 121 English Composition or into HU 101 DSP Writing/CEC. In other words, determine HU 101's "top" cut-off point.

10. The Humanities Division should further consider using the Writing Sample to formalize "bottom" cut-off values for HU 101. Currently

this "bottom" cut-off to determine placement into HU 101 DSP Writing or into the CEC is determined from the reading placement test score, not from the Writing Sample.

11. The Humanities Division should consider a computer-managed evaluation system like those described in Karen Jacobson's graduate paper on writing-sample scoring methods. The current holistic system cannot provide a measure of student improvement, where a system using defined and more objective criteria could provide easily correlatable pre-course and post-course scores.

12. The Humanities Division should sit with the DSP Tutor/Lab Coordinator and with the Writing Lab Assistants to discuss the feasibility of and guidelines for helping student writers in more than just the revision of papers already graded. The problem of helping too much is not avoided by the current restriction to helping students just in the revision of graded papers. Guidelines might allow the Writing Lab to expand services to its original scope of helping students at any stage of the writing process; guidelines might also assure that the Writing Lab fostered independence and responsibility in the student writers served and never fostered.

13. The DSP Mathematics course was revised in 1982. The book, course syllabus, and methods of instruction were completely revised. The purpose was to make transition from DSP to a first level mathematics courses less traumatic for the individual student. Available statistics indicate there is a 75% success rate for those students who take DSP Mathematics and then take another mathematics class (e.g., Business Mathematics, Foundations of Mathematics, Algebra).

The current DSP Mathematics courses cover arithmetic through Algebra I and Elementary Algebra covers Algebra I through early topics in Intermediate Algebra. At most institutions the two courses are considered remedial classes and in-house credit is given. The arithmetic - Algebra I level is usually done on an individualized basis, providing an unlimited time to cover the necessary topics and a pass-fail exit approach. Several steps could be devised to institute such a modified procedure:

a. Since DSP has a built-in lab component, Elementary Algebra and Business Mathematics could also have a built in lab component. The lab requirements would consist of a combination of Mathematics Lab instruction and Computer Lab.

b. Computer literacy/awareness could be built into the course syllabus.

c. The grade structure could be modified appropriately.

d. A change from terms to semesters could provide adequate instructional time.

e. Statistical studies have already been completed which assess the overall success rate of students taking DSP and then one of the first-level mathematics courses. A statistical study could be done for each first-level mathematics class. The grade success of students who complete DSP Mathematics and enter either Business Mathematics or Foundations of Mathematics would give insight into the adequacy of the topics covered in DSP Mathematics course.

f. Additional diagnositc testing could help identify learning problems related to the mathematics area.

g. Presently, DSP tests are randomly generated by the IBM computer. The test package could be expanded and the number of items increased to avoid item repetition.

Several of these proposed steps are being developed at the present time in various areas of the administration, but a concerted effort by all those effected is required.

14. The DSP Mathematics course content structure is in line with most other institutions. We offer more computer awareness and use than several other colleges. However, a more structured approach (i.e., specific assignments, remedial work from the diskettes) in using the computers is required. Existing software would have to be organized in a user-friendly menu so students could access the various levels more simply.

15. Although the lab component of the DSP Mathematics course is becoming more structured and student accountability is monitored closely, a full-time lab instructor is needed to provide consistency in instruction from professionals with adequate degrees. A hard money commitment could provide the means for expanding lab hours and ensuring the availability of quality assistance.

16. Computer literacy must also be addressed as an upcoming basic skill. At other institutions it is offered in numerous freshman level courses so each student is exposed to some type of computer awareness. Three (3) or four (4) required core courses could be chosen as an appropriate means of introducing computer literacy to freshman students so they are exposed to the computer at least once during the first or second term.

17. Vertical integration with the Division of Science/Mathematics is adequate, but horizontal integration could be improved in several areas, including problem-solving and verbal problems. Integration of basic reading and problem-solving skills must also be structured adequately. This could be accomplished by (a) a team approach using lab/reading instructor/tutors/mathematics instructors, or (b) offering problem-solving as a separate credit course.

These conclusions have been developed from analysis of internal documentation compiled by the Basic Skills Articulation Team during the past several months. Pertinent selections of these research data are presented in the appendices which follow.

APPENDIX A:

DEVELOPMENTAL STUDIES PROGRAM
EVALUATION DATA, 1983-1984

DSP WRITING AND DSP MATHEMATICS

SUCCESS RATE OF STUDENTS
PURSUING NEXT LEVEL COURSE
FROM FALL 1981 THROUGH WINTER 1984

	DSP WRITING	DSP MATH	DSP READING
TOTAL ENROLLMENT (Fall, 81 - Winter, 84)	765	369	176
Students who passed course	553 (72%)-	238 (64%)-	114 (65%)-
* Students who passed AND ATTEMPTED NEXT LEVEL COURSE	D or higher 324 (58%)	C or higher 118 (49%)	D or higher 53 (47%)
Students who passed next level course with a D or higher	240 (75%)	89 (75%)	43 (81%)

* DSP Writing: English Composition

DSP Math: Foundations of Math or
Business Math or
Elementary Algebra

APPENDIX B:

DEVELOPMENTAL STUDIES PROGRAM
RETENTION DATA, 1980 - 1984

DEVELOPMENTAL STUDIES PROGRAM
Students Enrolled in D.S.P. Courses

Term	Total Students	Retention: Total Returning	Retention: Retention Rate at RACC
1982-83			
Fall, 1983	359		
Winter, 1984		278	77%
Spring, 1984		271	75%
1981-82			
Fall, 1982	242		
Winter, 1983		189	78%
Spring, 1983		148	61%
Fall, 1983		111	46%
Winter, 1984		84	35%
Spring, 1984		66	27%
1980-81			
Fall, 1981	189		
Winter, 1982		142	75%
Spring, 1982		118	62%
Fall, 1982		85	45%
Winter, 1983		74	39%
Spring, 1983		60	32%
Fall, 1980	170		
Winter, 1981		105	61%
Spring, 1981		79	46%
Fall, 1981		49	29%
Winter, 1982		39	23%
Spring, 1982		33	19%

APPENDIX C:

DEVELOPMENTAL STUDIES PROGRAM
GRADE DISTRIBUTION, 1981-1983

DEVELOPMENTAL STUDIES PROGRAM
1982-83
DSP Courses
Grade Distribution

1982-83 Grade Distribution

	A	B	C	D	R	W	I
Math	23%	22%	17%	.8%	33%	2%	2%
Personal Development	16%	30%	6%	3%	33%	10%	0%
Reading	27%	19%	12%	4%	29%	6%	4%
Study Skills	33%	29%	14%	10%	14%	0%	0%
Writing	15%	27%	28%	4%	22%	4%	0%
ESL	18%	27%	17%	17%	18%	2%	0%

1981-82 Grade Distribution

	A	B	C	D	R	W	I
Math	15%	13%	21%	3%	39%	8%	0%
Personal Development	9%	18%	54%	5%	9%	-	-
Reading	17%	15%	9%	3%	41%	7%	7%
Study Skills	21%	36%	15%	12%	12%	3%	-
Writing	13%	26%	19%	3%	31%	6%	1%

Success of students taking DSP classes improved this year as compared with 1981-82. Student success in DSP Mathematics improved by 10.8%, success in DSP Writing improved by 13%, and success in DSP Reading increased by 18%.

GRADE DISTRIBUTION

DSP Classes
Fall Term, 1983

Enrollment		A	B	C	D	R	W	I
39	Reading	13-33%	5-13%	5-13%	2-5%	12-31%	2-5%	1-3%
193	Writing	10- 5%	51-26%	36-18%	18-9%	54-28%	10-5%	4-2%
89	Math	18-20%	16-18%	16-18%	0-0%	26-29%	8-9%	1-1%
6	Personal Development	2-33%	3-50%	0-0%	1-16%	0-0%	0-0%	0-0%
23	ESL	4-17%	7-30%	3-13%	3-13%	2-9%	2-9%	0-0%
14	Study Skills	1- 7%	4-28%	2-14%	2-14%	1-7%	4-28%	0-0%

DSP Classes
Fall Term, 1982

Enrollment		A	B	C	D	R	W	I
33	Reading	11-33%	8-24%	2- 6%	0-0%	10-30%	0-0%	2-6%
140	Writing	21-14%	36-25%	39-27%	9-6%	29-20%	6-4%	0-0%
81	Math	9-11%	21-25%	16-19%	2-2%	29-35%	1-1%	3-4%
11	Personal Development	0-0%	7-58%	1-8%	1-8%	2-17%	0-0%	0-0%
25	ESL	6-24%	5-20%	2-8%	7-28%	5-20%	0-0	0-0%
7	Study Skills	4-57%	0-0%	1-14%	1-14%	1-14%	0-0%	0-0%

APPENDIX D:

READING RESEARCH, 1981

A. Conduct of the Study

1. The Spring 1981 list of students on Academic Dismissal was used to determine which of all students failing, had less than 11.5 grade level reading skills.

2. The Fall, 1981 mid-term grades of students from five classes chosen at random were used to determine how many students with less than 11.5 grade level reading skills were succeeding and how many were failing or dropped out after starting.

The number of students with greater than 11.5 reading skills who were failing and the number who were succeeding were also determined.

3. The SMOG Readability Formula was used with a number of textbooks currently in use to determine the difficulty of the reading material with which students dealt.

4. Knowledge of what other colleges (community and four-year) require of their students in the way of reading skills was considered.

B. Overall-all Findings

1. There is a total of 58 students on the Spring, 1981 Academic Dismissal List. Of these 58, 44 have recorded reading scores. Of these failing students, 35 or 80% have less than an 11.5 reading level.

2. Of the 115 students in the five classes whose Fall, 1981 mid-term grades were checked, 19 were failing (or dropped after starting). Of these 19, 16 or 84.2% have less than an 11.5 reading level. Only 3 students, or 19%, have a greater than 11.5 reading level.

3. From the above group of 115 students, 96 are presently passing. Of these 96, 81 of them or 84.4% have greater than an 11.5 reading level.

4. The following are textbooks currently in use and their corresponding reading levels as determined by the SMOG Readability Formula:

Systems of Society by Mendoza and Napoli	13.7
Fundamental of Nursing	15+
Computers and Data Processing by Mandel	12.5
Biology by Jensen, Heinrich, et al.	12.5
Introduction to Environmental Studies by Turk	12.0
Functional Writing by Van Nostrand, et al.	12.0

5. Some other colleges that have established reading standards are include:

a. Northampton County Area Community College has recently established a prerequisite of an 11.3 reading level for their English I course.

b. Millersville State College requires an 11.5 reading level, or students enroll in their developmental program.

c. Kutztown State College is presently taking only those students into their developmental program who read on a 10.5 level. They have correlated that reading level with a score of 320 on the students' SAT tests.

C. Other Findings

1. The July 15, 1973 issue of the New York Times compiled data showing that 59% of the open admission students and 52% of the regular admission students dropped out. It was believed by at least one researcher that the major cause of these drop-outs was the inability of the students to cope with their reading materials.

2. An 11.5 reading level is a modest expectation since the level at which a student tests is considered his Frustration level. A

student's instruction should ideally take place on a lesser level. Experts place this level at one to two years below Frustration.

D. Conclusion

Recent in-house research of 159 RACC students currently enrolled shows a high correlation between students' reading levels and their rate of success or failure in RACC courses.

Students with less than 11.5 reading levels should be required to raise them by enrolling in the appropriate reading course.

(Note: Please refer to the extensive 1983 Reading Study presented on pages 118-134 of Creating A Better Tomorrow: Faculty Development Project Reports for the 1982-1983 Academic Year for additional relevant data.)

BREAKDOWN OF SCORES

	TOTAL # STUDENTS	TOTAL # FAILURES	FAILURES < 11.5	TOTAL # SUCCESSES	SUCCESSES < 11.5
SS I	17	5	5 or 100%	12	0 or 0%
SS II	22	4	2 or 50%	18	2 or 11%
SS III	23	4	3 or 75%	19	1 or 5%
SS IV	30	3	3 or 100%	27	9 or 33%
SS V	23	3	3 or 100%	20	3 or 15%
SUMMARY	115	19	16 or 84.2%	96	15 or 15.6%

It can also be concluded from the above scores that of the 96 students who are passing, 81 of them or 84% have a greater than 11.5 reading level.

Based on Spring 1981 Academic Dismissal List

Total # Students with Recorded Rdg. Scores: 44

Failures with Scores < 11.5 35 or 80%

Failures with Scores > 11.5 9 or 20%

APPENDIX E:

DEVELOPMENTAL STUDIES PROGRAM
TUTORIAL COMPONENT

DSP TUTORIAL COMPONENT

General Services: Pre-College Programs

Academic Assessment

Study Skills Instruction, (Group and Individual Tutoring in all RACC Courses, Group and Individual Workshops)

Basic Skills Labs

Articulation with Faculty

Referral

Follow-up

I. Pre-College Programs

Purpose: To prepare new students to meet demands of college work; improve study habits and increase basic skills.

Success Skills Seminars

College Problem-Solving

Interim Tutoring (students learn course concepts prior to start of classes)

II. Academic Assessment

Transcript review, placement testing and review, registration, diagnosis and prescribed academic support programs, etc.

III. Study Skills Instruction, Individual, Group, and Workshop Format Delivery

Purpose: To provide the supportive skills many students need to learn to be successful in their coursework.

Note-taking - mapping, outlining

Test-taking - essay exams, objective

Written Assignments - research papers, critiques, book reviews

Problem-Solving - word problems, logic, reasoning, processing

Listening - main ideas, details

Communications Skills - in-class, summarizing, interpersonal

Reading - textbooks, syllabi, main ideas, details, speed memory training

Vocabulary Development - course-based vocabulary and concepts

Basic Computer Literacy, Computer friendliness

Translation for ESL Students

Time Scheduling

IV. Basic Skills Labs

Purpose: To provide classroom support, diagnosis, assessment of skills deficiencies and individualized instruction.

A. READING LAB

Lab is required by adjuncts teaching DSP Reading; had not been offered as requirement during 1982-83 academic year.

Support of DSP Reading Class

Critical Reading Skills (computerized)

Vocabulary Development - structural and contextual analysis, computerized vocabulary programs, general and course-related vocabulary building, for all RACC classes and ESL students

Phonics

Textbook Reading

Rapid Reading - speed and comprehension, skimming and scanning

Listening Skills

Key Concept Development - terms to master for minimum success in RACC classes

Solving Word Problems

Preparation for Objective and Essay Exams

Visual Assessment Testing

ESL Reading

Follow-up programs for DSP Reading Students

B. WRITING LAB

Not required for DSP Writing Class

Critical thinking and writing development

Listening Skills

Grammar, mechanics, rhetoric (individual and auto-tutorial)

Research paper and documentation

Sentence development, paragraph development, essay development

Any written assignment required by RACC classes, book reviews, abstracts, reports, essay examinations, etc. Other skills needed to complete assignments such as outlining, mapping, and organizing

Spelling and dictionary use

ESL instruction and bilingual tutoring

Vocabulary - key concepts for DSP Writing and English Classes

C. MATH LAB

Required for DSP Math

Drill (computer and other) on four basic operations

Study Guide for DSP Math - vocabulary and key concepts for each chapter and examples

Math Vocabulary - key concepts for all math classes

Math Anxiety Workshops

Math Instruction for Chemistry

Problem-Solving and Organizational Skills

Self-instructional Math Programs - levels up to Algebra

Math Workshops for Nurses

D. ESL LAB

Required for all ESL Courses

Supplement for ESL classes and support for all RACC classes

Testing and placement

Reading, pronunciation, conversation, listening, and writing skills developed, multi-media presentation (computer, video, taped)

Analytical Thinking Skills

Articulation with other basic skills labs for special services

V. Articulation with Faculty.

A. Worked cooperatively with DSP Math and ESL Instructors to develop required Math Lab and ESL component; worked with Reading Adjunct on Reading Lab requirements for 1983-84 Academic Year.

B. Close articulation among Writing Lab Tutors and humanities instructors to develop individual courses of action for students.

C. Individual conferences with all faculty by Tutor Coordinator and individual Tutors.

D. Labs, Tutor Coordinator, and individual Tutors have received course syllabi and samples of assignments with which to assist students.

E. Students are consistently referred to Writing Lab to complete course assignments; behavioral science faculty works closely with DSP to improve student performance.

F. Tutor Coordinator and Tutors worked closely with faculty to develop lists of key course concepts which are now available for most RACC Courses.

G. In-class workshops are offered to help students learn study skills.

H. Articulation with nursing department has resulted in developing "math for nursing" workshops.

VI. Referrals/Follow-Up

Purpose: There is close communication among faculty, Tutors, and the Tutor Coordinator on behalf of the student to enable the most efficient academic support available.

A. During the summer months, students receiving low placement test scores are usually seen by the Tutor Coordinator. A Plan of Action is developed to provide students with assistance in basic skills improvement.

B. An Early Warning System has been implemented to enable faculty to notify the tutorial component so early intervention of students' academic difficulties can occur. A prescription of service is developed.

C. Tutor Coordinator meets with DSP Math faculty to discuss students who have failed the first test. (This failure is indicative of future academic problems.)

D. At the end of each term, DSP Math faculty supply Tutor Coordinator with a list of students who failed DSP Math. Tracking of these students allows Tutor Coordinator to provide supportive services.

E. DSP Staff receive mid-term evaluations via DSP faculty regarding student progress. Students having academic difficulties are contacted.

F. DSP receives end-of-term evaluations from DSP faculty. Students failing a course will be monitored.

G. All faculty are actively encouraged to refer students to the DSP at any time throughout the term. A Plan of Action is implemented to assist students with their academic performance. (Many faculty refer students to the DSP who fail their first exam.)

H. Conferences with faculty and Tutor Coordinator are held as needed regarding a student's academic performance.

I. Students on first appearance (academic probation) are monitored very closely. Many are supplied with tutoring.

J. Referrals made by Tutors to Tutor Coordinator. Students experiencing any difficulties (personal, career, academic) are referred to appropriate staff.

K. Articulation with Counseling to track progress of big-risk students (i.e., pre-allied health students with low grade point average).

L. Tracking of Act 101 students occurs via transcript review at the end of each term.

APPENDIX F

PROPOSED MATHEMATICS

PLACEMENT TEST

READING AREA COMMUNITY COLLEGE

Welcome to Reading Area Community College. You are about to take the Mathematics Placement Test. Do your best, but do not worry if you cannot answer all the questions. The purpose of this test is to find out what you know so that we can place you in the proper mathematics course. Do not guess; if you do not know an answer, leave it blank.

For this test you will need a No. 2 pencil, scratch paper and an answer sheet. Print your name, social security number and the date legibly in the appropriate spaces on the answer sheet. Read each test question carefully. Work out the problems as directed on the scratch paper and do not write on the test. Make sure that the number on the answer sheet corresponds to the number of the problem and darken completely your choice. For example: If you choose _____ for an answer, fill it in this way: ____ . If you wish to change an answer, make sure you erase the unwanted answer cleanly. There is a 45-minute time limit for this test. When you finish, return your test, answer sheet and scratch paper to the test proctor.

Perform the indicated operations.

1. $\begin{array}{r} 423 \\ 186 \\ +\ 372 \\ \hline \end{array}$ a. 971 b. 981 c. 881 d. 871

2. $\begin{array}{r} 93.4 \\ -\ 7.86 \\ \hline \end{array}$ a. 85.66 b. 85.64 c. 85.54 d. 86.54

3. $\begin{array}{r} 27 \\ \times\ 34 \\ \hline \end{array}$ a. 189 b. 698 c. 918 d. 149

4. $\frac{5}{7} - \frac{2}{3}$ a. $\frac{3}{4}$ b. $\frac{1}{4}$ c. $\frac{3}{10}$ d. $\frac{1}{21}$

5. $\frac{2}{3} + \frac{5}{6}$ a. $\frac{7}{9}$ b. $1\frac{1}{2}$ c. $\frac{3}{4}$ d. 3

6. $\frac{3}{4} \times \frac{2}{3}$ a. $\frac{1}{2}$ b. $\frac{17}{12}$ c. 6 d. $\frac{5}{12}$

7. $1.6\overline{)1.44}$ a. .09 b. 9 c. .9 d. 90

8. What percent of 24 is 3?

   a. $\frac{1}{8}$ b. $12\frac{1}{2}$ c. 8 d. 800

9. Solve the following proportion for p.

   $\frac{3}{4} = \frac{6}{p}$ a. 2 b. 21 c. 4 d. 8

10. Marie won $1,000. She had to pay 2.3% of her winnings for taxes. How much did she pay?

    a. $23.00 b. $0.23 c. $230 d. $2.30

11. Combine: $-6 + 4 - (-3) + (-4)$

    a. -9 b. -17 c. 9 d. -3

12. Which of the following is a factor of $x^2 - x - 20$?

    a. x b. (x - 4) c. (x - 2) d. (x - 5)

13 Find the quotient. $\frac{(-10)(4)(-1)}{(2)(-5)}$

a. -4 b. 4 c. $\frac{1}{4}$ d. $-\frac{1}{4}$

14. Find the product. $(x + 3)(2x - 5)$

a. $2x^2 - 15$ b. $2x^2 + 15$ c. $2x^2 + x - 15$ d. $2x^2 - x - 15$

15. Solve for a. $2a + 3 = -a + 9$

a. 6 b. 4 c. 2 d. 3

16. Solve for h. $A = \frac{bh}{2}$

a. $2A - b$ b. $\frac{2A}{b}$ c. $\frac{A}{2b}$ d. $\frac{A - 2}{b}$

17. Solve for r. $-3r$ 9

a. r -3 b. 4 3 c. 4 -3 d. 4 3

18. Find the sum. $\frac{1}{3} + \frac{2x}{5}$

a. $\frac{3x}{8}$ b. $\frac{5 + 6x}{15}$ c. $\frac{11x}{15}$ d. $\frac{1 + 2x}{8}$

19. Solve for x. $x^2 + 5x - 6 = 0$

a. 1 b. -6 c. -1 d. 1, -6

20. Solve for x and y. $2x + y = 1$
$x - y = 2$

a. (0, 1) b. (2, 0) c. (1, -1) d. (1, 1)

21. Which of the following isn't a real number?

a. 0.16 b. $-\frac{5}{6}$ c. -4 d.

22. What property of the real number system is illustrated by $7(x + 6) = 7(x) + 7(6)$?

a. distributive
b. commutative
c. inverse
d. associative

23. Find the product. $(4x)^2 (2x)^{-1} (6x)^0$

a. $48x$ b. $-32x$ c. $-16x$ d. $8x$

24. Which of the following isn't the graph of a function?

a. b.

c. d.

25. If θ is an angle in standard position and $(-2, -4)$ are the coordinates of a point on its terminal side, then $\tan \theta$ is:

a. -6 b. 2 c. $\frac{1}{2}$ d. undefined

26. Find the quotient. $\frac{10}{3 - i}$

a. $\frac{15}{4} + \frac{5}{4} i$ b. $3 + i$ c. 1 d. -1

27. Given: $f(x) = 2x - 1$, $g(x) = x^2$, find $f(g(-2))$.

a. 25 b. 9 c. -9 d. 7

28. Solve: $\sin^{-1}(-1)$.

a. $-90°$ b. 1 c. $90°$ d. -1

29. Solve: $\log_b b^x$.

a. b^x b. 1 c. b d. x

30. Solve: $2 \sin \theta - 1 = 0$.) θ /2

a. $\frac{}{2}$ b. $\frac{}{3}$ c. $\frac{}{4}$ d. $\frac{}{6}$

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